

REMARKS

Applicants respectfully request reconsideration of this application as amended. Claims 1, 35, 37 and 44 have been amended to present the claims in better form for allowance and for possible consideration on appeal. Applicants respectfully request the Examiner to accept the proposed amendments. Claims 2, 4, 9-22 and 28-34 have been previously cancelled. No new claims have been added. Therefore, claims 1, 3, 5-8, 23-27 and 35-48 are presented for examination.

35 U.S.C. §112 Rejections

Claim 35 stands rejected under 35 U.S.C. §112, second paragraph. Claim 35 has been amended to overcome this rejection of the claim. Further, claim 37 has been amended to provide proper antecedent basis in light of the amendments to claim 35.

35 U.S.C. §102 Rejections

Claim 1 stands rejected under 35 U.S.C. §102(b) as being clearly anticipated by Hayashi, et al., U.S. Patent No. 5,581,109 (“Hayashi”).

Hayashi discloses “[a] semiconductor device [that] includes a semiconductor chip, [and] an I/O-cell circuit having a transistor-array part. The semiconductor device further includes a first group of bonding pads and a second group of bonding pads.” (Abstract, lines 1-4).

In contrast, claim 1, in pertinent part, recites “a plurality of bond pads configured in a staggered array between the first edge and the core, wherein the staggered array includes an inner ring and an outer ring of bond pads.” (emphasis provided). However, nowhere in Hayashi is such a feature taught or reasonably suggested. Accordingly,

Applicants respectfully request the withdrawal of the rejection of claim 1 and its dependent claims.

Claim 44 stands rejected under 35 U.S.C. §102(b) as being clearly anticipated by Pendse, et al., U.S. Patent No. 5,818,114 (“Pendse”).

Pendse discloses an “. . . I/O pad structure and layout methodology . . .” in which “. . . *the pad layout . . . entails the use of two rows of pads* on the chip periphery as opposed to the more conventional single row. . . arrangement.” (Abstract, lines 1-7; emphasis provided).

In contrast, claim 44, in pertinent part, recites “a plurality of bond pads configured in a staggered array between the first edge and the core, wherein the staggered array includes an inner ring and an outer ring of bond pads.” (emphasis provided). However, nowhere in Pendse is such a feature taught or reasonably suggested. Accordingly, Applicants respectfully request the withdrawal of the rejection of claim 44 and its dependent claims.

Claims 1, 3, 5 and 6 stand rejected under 35 U.S.C. §102(e) as being clearly anticipated by Hiraga, et al., U.S. Patent No. 6,091,089 (“Hiraga”).

Hiraga discloses “[a] semiconductor integrated circuit device [that] has a semiconductor chip, on which are formed a plurality of input/output circuits and input/output pads individually connected.” (Abstract, lines 1-4). Hiraga further discloses that “*input/output pads 5 [are] connected to the input/output circuits . . . arranged in a single row*” (col. 4, lines 4-6; emphasis provided) and the single row is “*the innermost row.*” (col. 4, lines 35-36; emphasis provided). Hiraga further discloses that “. . .

input/output pads 6 and 7 are arranged in a staggered arrangement on both sides of a row of input/output circuits.” (col. 4, lines 64-66; emphasis provided).

Claim 1, in pertinent part, recites “a plurality of bond pads configured in a staggered array between the first edge and the core, wherein the staggered array includes an inner ring and an outer ring of bond pads.” (emphasis provided). The Examiner has indicated in a final Office Action mailed, August 17, 2005 (the “Office Action”) that “Hiraga teaches . . . [that] a plurality of bond pads [5 & 6] [are] configured in a staggered array . . . include[ing] an inner ring and an outer ring of bond pads.” (Office Action, page 7, lines 3-5). Applicants respectfully disagree with the Examiner’s characterization of Hiraga. In contrast, Hiraga teaches that input/output pads 6 and 7 are the pads in the staggered arrangement and not pads 5 and 6. (col. 4, lines 64-66). Nowhere in Hiraga is it taught or reasonably suggested that input/output pads 5 and 6 are in a staggered arrangement. Accordingly, Hiraga does not teach or reasonably suggest “a plurality of bond pads configured in a staggered array between the first edge and the core, wherein the staggered array includes an inner ring and an outer ring of bond pads”, as recited by claim 1. (emphasis provided). Applicants respectfully request the withdrawal of the rejection of claim 1 and its dependent claims.

35 U.S.C. §103 Rejections

Claims 3, 5-8, and 23-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hayashi.

With regard to claims 3, 5-8, and 23-27, they depend from independent claim 1 and thus, include the limitations of claim 1. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 3, 5-8, and 23-27.

Claims 3, 5-8, and 23-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pendse.

With regard to claims 3, 5-8, and 23-27, they depend from independent claim 1 and thus, include the limitations of claim 1. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 3, 5-8, and 23-27.

Claims 7, 8 and 23-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hiraga.

With regard to claims 7, 8 and 23-27, they depend from independent claim 1 and thus, include the limitations of claim 1. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 7, 8 and 23-27.

Claims 35-43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hayashi.

Claim 35 contains limitations similar to those of claim 1. Accordingly, for the reasons stated above with respect to claim 1, Applicants respectfully request the withdrawal of the rejection of claim 35 and its dependent claims.

Claims 35-43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pendse in view of Hayashi.

Claim 35 contains limitations similar to those of claim 1. Accordingly, for the reasons stated above with respect to claim 1, Applicants respectfully request the withdrawal of the rejection of claim 35 and its dependent claims.

Claims 35-43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hiraga in view of Hayashi.

Claim 35 contains limitations similar to those of claim 1. Accordingly, for the reasons stated above with respect to claim 1, Applicants respectfully request the withdrawal of the rejection of claim 35 and its dependent claims.

Claims 45-48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pendse.

With regard to claims 45-48, they depend from independent claim 44 and thus, include the limitations of claim 44. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 45-48.

Claim 46 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hiraga in view of Pendse.

With regard to claim 46, it depends from independent claim 44 and thus, include the limitations of claim 44. Accordingly, Applicants respectfully request the withdrawal of the rejection of claim 46.

Conclusion

In light of the foregoing, reconsideration and allowance of the claims is hereby earnestly requested.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Request for an Extension of Time

Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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